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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/696,849

10/29/2003

Akiho Yoshizawa

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25226 7590 01/23/2007  
MORRISON & FOERSTER LLP  
755 PAGE MILL RD  
PALO ALTO, CA 94304-1018

EXAMINER

ALUNKAL, THOMAS D

ART UNIT

PAPER NUMBER

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/696,849	<b>Applicant(s)</b> YOSHIZAWA, AKIHO	
	<b>Examiner</b> Thomas D. Alunkal	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4, and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al (hereafter Kawakami) (US 6,208,610) and in view of Henderson et al (hereafter Henderson) (US 4,844,614).

Regarding claim 1, Kawakami discloses an optical pickup device (see Abstract) comprising a housing having an attachment position (Column 7, line 63-Column 8, line 5), and a beam splitter fixed to the attachment position by adhesive so that an optical axis of the beam splitter coincides with an optical axis of the optical pickup device (Column 7, line 63-Column 8, line 7 and lines 33-36). Kawakami does not disclose wherein the housing has a projection for temporarily repositioning the beam splitter by means of a plurality of through holes and projection sticks. In the same field of endeavor, Henderson discloses a housing (Figures 1-3, Element 10) that has a projection for positioning a beam splitter at an attachment position by abutting the beam splitter (Figures 1-3, Element 11), and in the attachment position, a plurality of through holes are defined for inserting therein a plurality of projection sticks for positioning the beam splitter (Figure 2, Elements 72-74).

One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to provide the temporary beam splitter positioning means of Henderson to the optical pickup device of Kawakami, motivation being to more accurately position the beam splitter within the its housing (Column 6, lines 33-38 of Henderson).

Regarding claim 4, Kawakami discloses the device of claim 1, further comprising a diffraction mirror attached to the housing and adapted to reflect light from the beam splitter (Column 6, liens 23-25 and Figure 4, Element 23)

Regarding claim 7, Kawakami discloses a method of assembling an optical pickup device (Figure 5), comprising applying an adhesive to a beam splitter attachment position of a housing of an optical pickup device (Column 8, lines 5-7), mounting a beam splitter temporarily positioned at the beam splitter attachment position via the adhesive (Column 8, lines 5-7), adjusting an angle of an attachment surface of the beam splitter while the adhesive is uncured (Column 8, lines 5-7 and lines 33-36. Specifically, the adjustment angle of the of beam splitter must be changed to match the optical axis only when the adhesive is uncured) wherein the angle of the attachment surface of the beam splitter is adjusted so that an optical axis of the beam splitter coincides with an optical axis of the optical pickup device (Column 8, lines 33-36) while detecting light projected to the beam splitter and reflected by a reflection surface of the beam splitter (Figure 6, i.e. the elements used for optical pickup). Kawakami does not disclose adjusting an angle of an attachment surface of the beam splitter by inserting projecting sticks in through holes defined in the beam splitter attachment position and moving the projection sticks relative to the attachment surface. In the same field of

endeavor, Henderson discloses adjusting an angle of an attachment surface of the beam splitter by inserting projecting sticks in through holes defined in the beam splitter attachment position and moving the projection sticks relative to the attachment surface (Column 2, lines 9-20 and lines 50-54).

One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to provide the temporary beam splitter positioning means of Henderson to the optical pickup device of Kawakami, motivation being to more accurately position the beam splitter within the its housing (Column 6, lines 33-38).

Regarding claim 8,9,10, and 12, these claims contain limitations similar to those in claim 7 and are rejected over the same grounds.

Regarding claim 11, Henderson discloses wherein the projection sticks each have a rounded apex that abuts the attachment surface of the beam splitter (Column 2, lines 9-20). The flat-ended adjusting screws of Henderson are an art recognized equivalent to the rounded apex projection sticks disclosed by the applicant. Thus, they can be used interchangeably without losing functionality.

Claims 2-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami and Henderson as applied to claims 1,4, and 7-11 above, and further in view of Sipotz, Jr. (US 5,903,394).

Regarding claim 2, neither Kawakami nor Henderson disclose recess regions used for receiving adhesive. In the same field of endeavor, Sipotz, Jr. discloses where the housing defines at the attachment position, an adhesive housing recess for the

adhesive and a reserve recess communicating with the adhesive housing recess for receiving adhesive overflowed from the housing recess (Column 3, lines 13-23 and Figure 2, Element 72).

One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to provide the adhesive housing recesses of Sipotz, Jr. to the optical pickup device of Kawakami and Henderson, motivation being to avoid adhesive buildup, which can lead to a deterioration in the performance of the entire optical pickup device (Column 3, lines 48-52 of Sipotz, Jr.).

Regarding claim 3, Sipotz, Jr. discloses wherein the adhesive housing recess is disposed about in the center of the attachment position of the housing, and the through holes are disposed around the adhesive housing recess (Figure 2, Element 66).

Regarding claim 5, Henderson discloses wherein the through holes comprise three through holes at three vertexes of an equilateral triangle around the adhesive housing recess (Figure 2, Elements 72-74).

Regarding claim 6, Henderson discloses wherein the through holes comprise two through holes at two vertexes of an approximately equilateral triangle around the adhesive housing recess and a projection for supporting the beam splitter is at the remaining vertex of the equilateral triangle (Figure 2, Elements 72-74).

### ***Response to Arguments***

Applicant's arguments filed 10/24/06 have been fully considered but they are not persuasive.

On page 7, final paragraph, applicant argues that the adjusting screws cited by Henderson, "... are apparently not for manufacturing assembly but for use to adjust the device when in operation". However, on Page 6, lines 33-38, Henderson clearly discloses that the screws, as depicted in Figure 4, are indeed used for assembly purposes. In addition, upon the combination of references, Henderson's adjusting screws are provided to the pickup of Kawakami. Thus, as disclosed by Kawakami in Column 7, line 63-Column 8, line 7 and lines 33-36, the positioning of the beam splitter to match the optical access (which upon the combination of references, uses adjusting screws of Henderson) **MUST** be done when the adhesive is uncured. Applicant also argues that neither Henderson nor Kawakami disclose the use of projection sticks. However, Henderson discloses an art recognized equivalent (i.e. means for adjusting the position of the beam splitter about an optical axis) with the adjusting screws.

### ***Conclusions***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571)272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Thomas Alunkal

  
WILLIAM KORZUCH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600